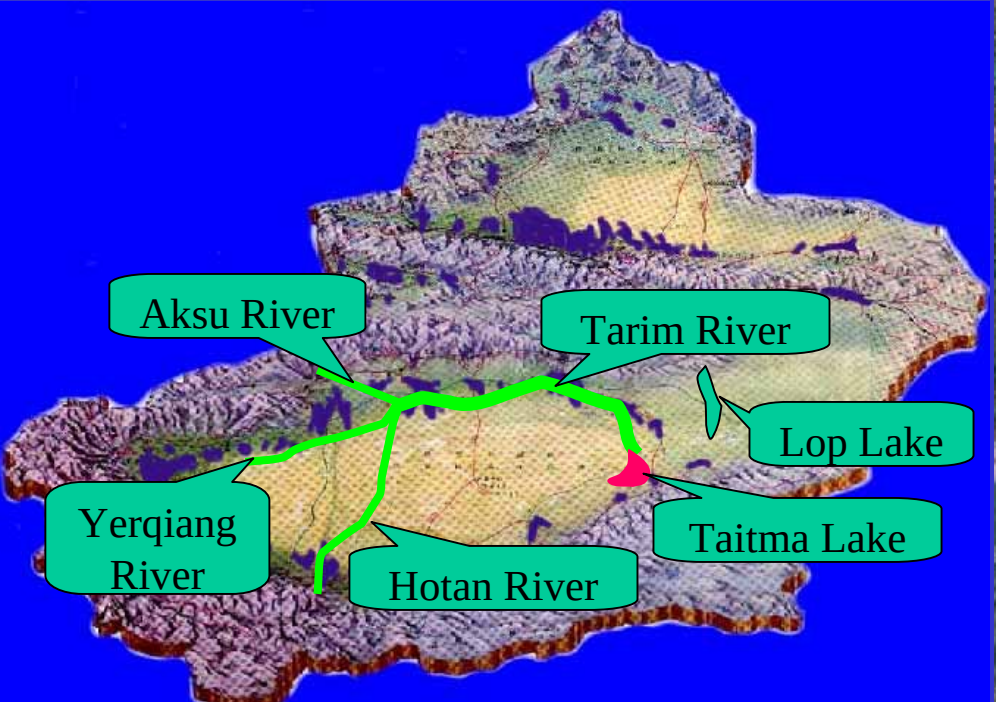
3 Application of the MODIS Data

Results:

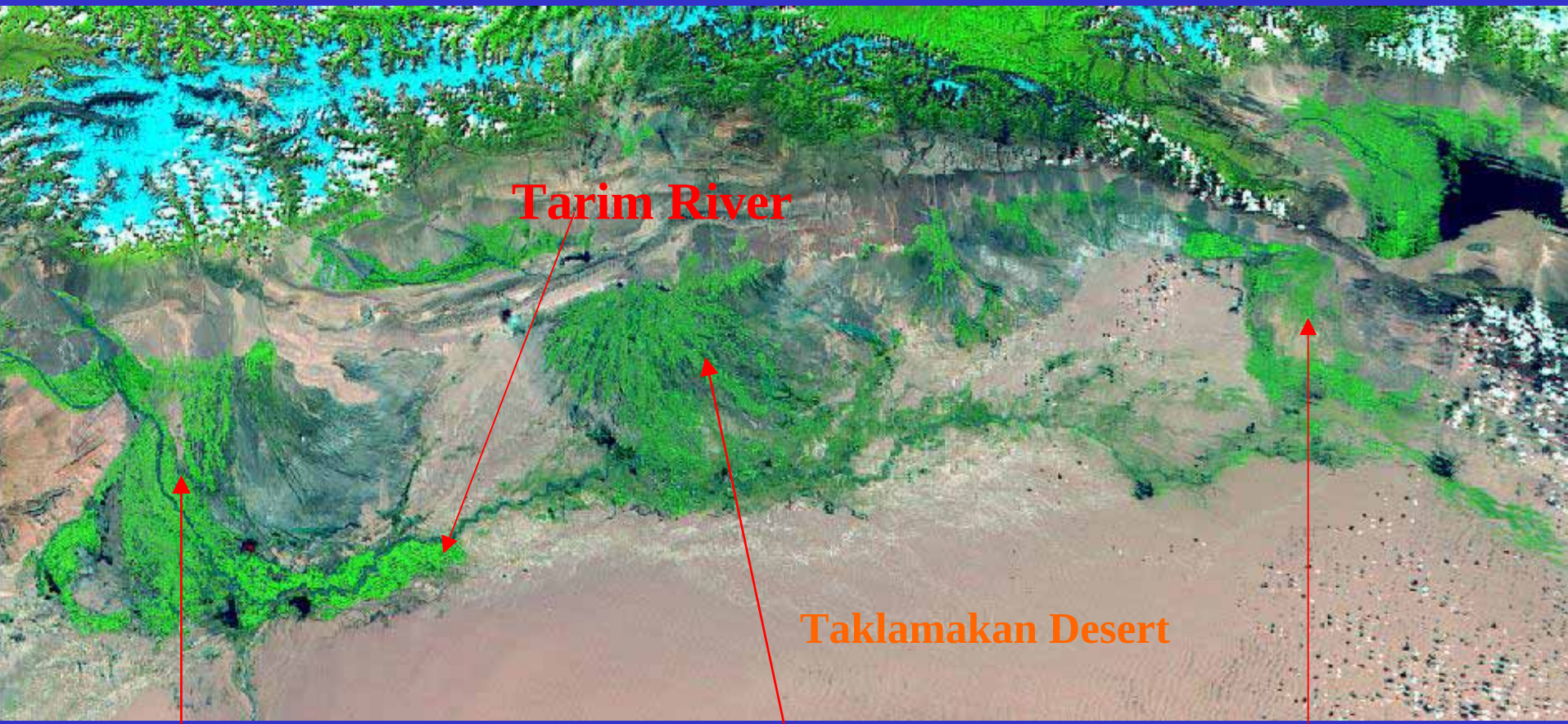
- **November 2001 -- November 2002**
- **The water area of the Ebinur Lake -- over 800 km^2 in average.**
- **The dried-up lake bottom has been covered with water.**
- **The serious sandstorms did not occur in 2002.**
- **The ecological environment of the Ebinur Lake has been obviously improved**
- **It is the basic object for improving the environment in the Ebinur Lake basin to maintain the lake water area over 800 km^2.**

4. Application of the MODIS Data in Tarim River

2347 km ,mainstream 1320 km, catchment area 1.04 $\times 10^6$ km^2 , total volume of water resources in the watershed is 4.368$\times 10^{10}$ m^3, farmland 1.33 $\times 10^6$ hm^2 in area, 8.26 million people

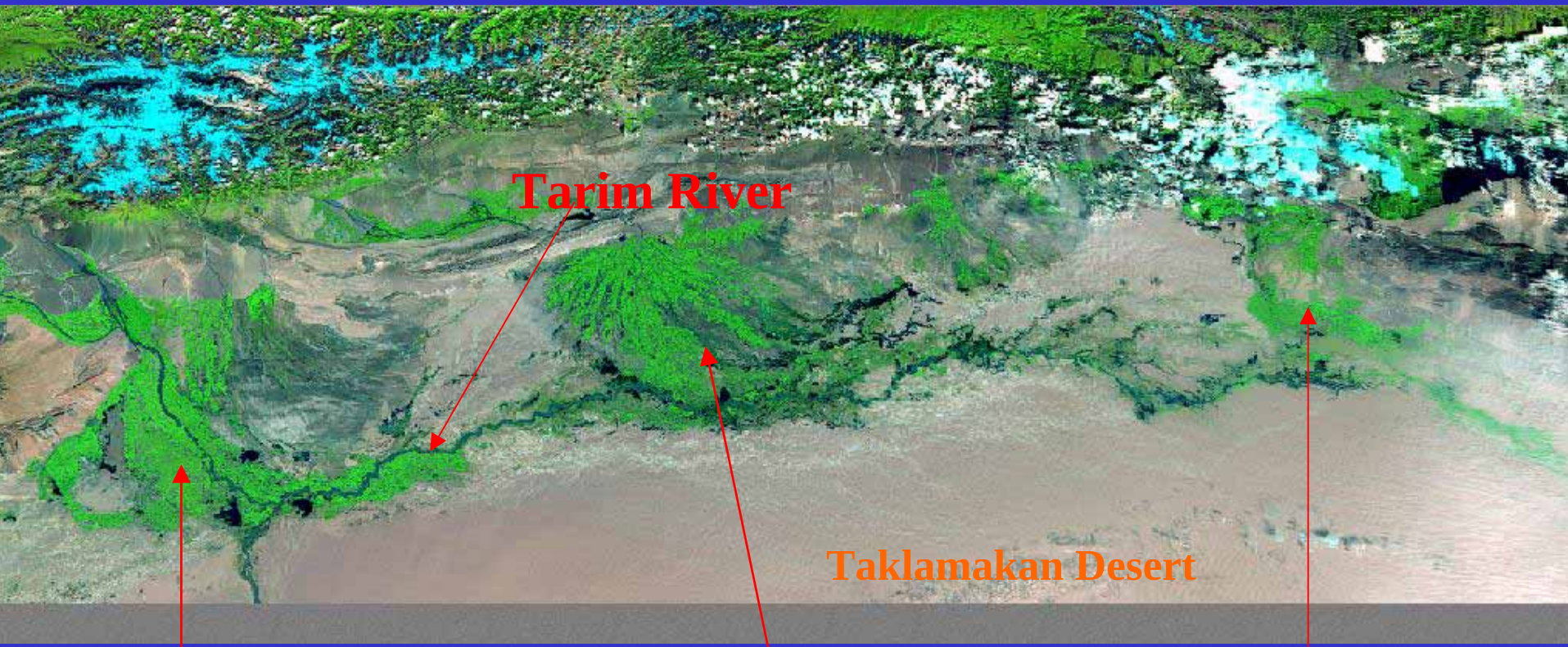


4. Application of the MODIS Data



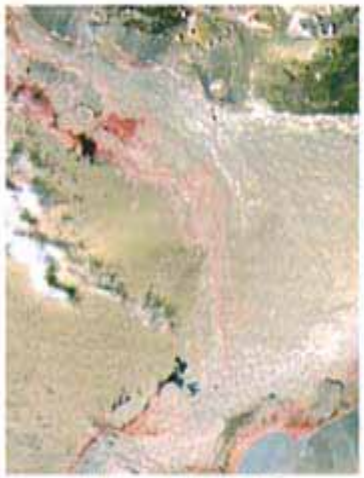
The remote sensing monitoring on the environment in the Tarim River watershed, Xinjiang (July 7, 2002)

4. Application of the MODIS Data



The remote sensing monitoring on the environment in the Tarim River watershed, Xinjiang (August 27, 2002)

4. Application of the MODIS Data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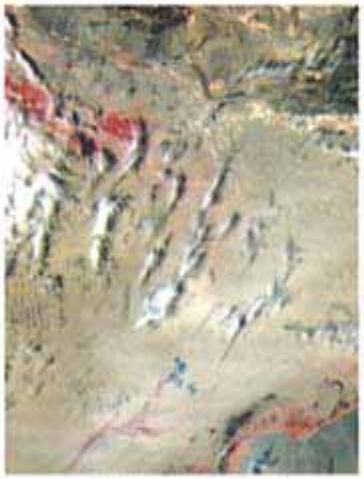
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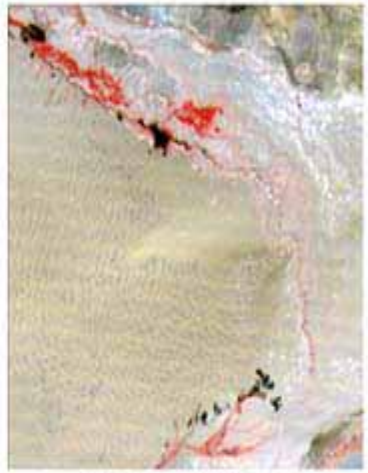
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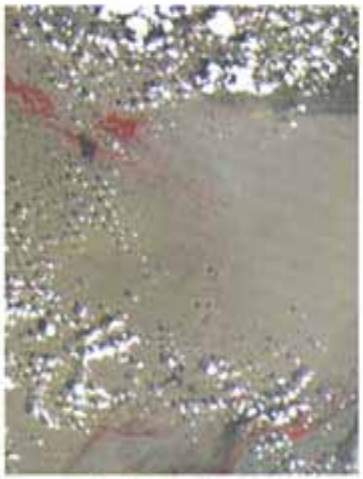
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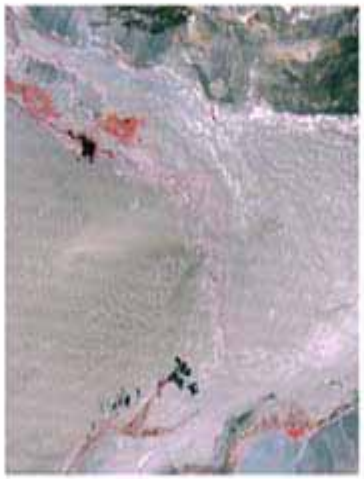

成像时间：2002 年 8 月 26 日


成像时间：2002 年 11 月 8 日

中国科学院知识创新工程项目

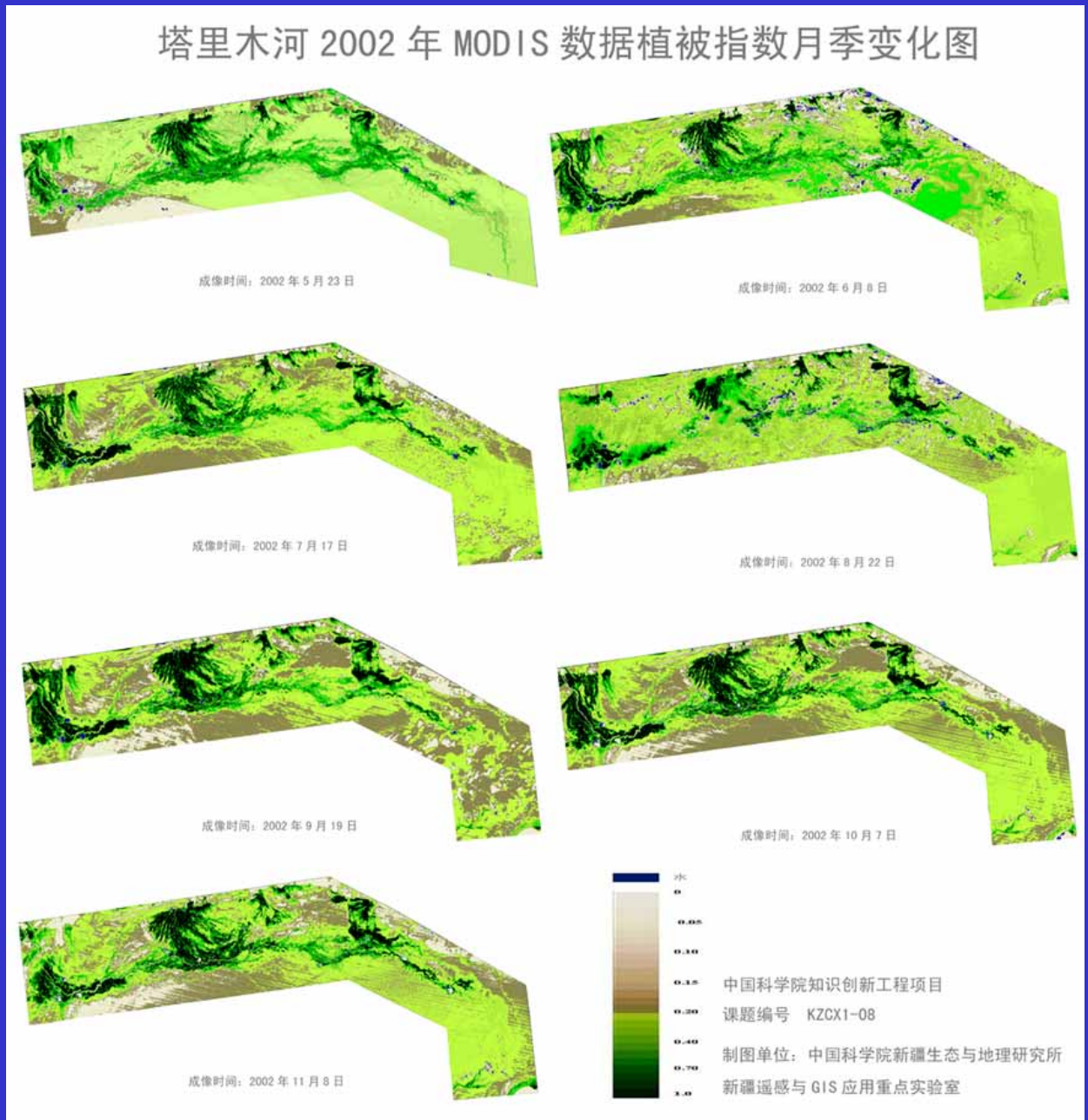
课题编号 KZCX1-08

制图单位：中国科学院新疆生态与地理研究所

新疆遥感与 GIS 应用重点实验室

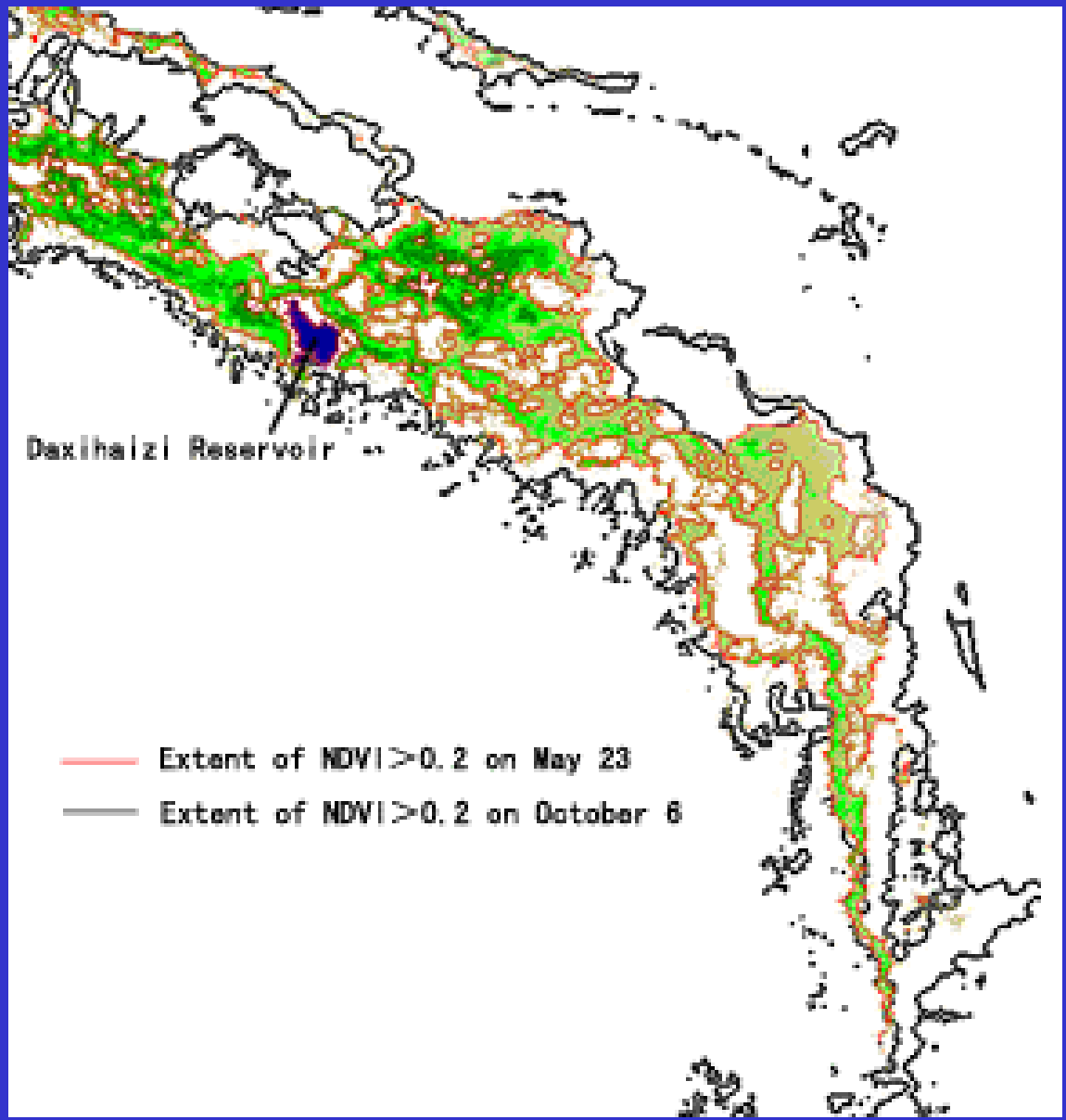
The MODIS images in the lower reaches of Tarim River in 2002

4. Application of the MODIS Data



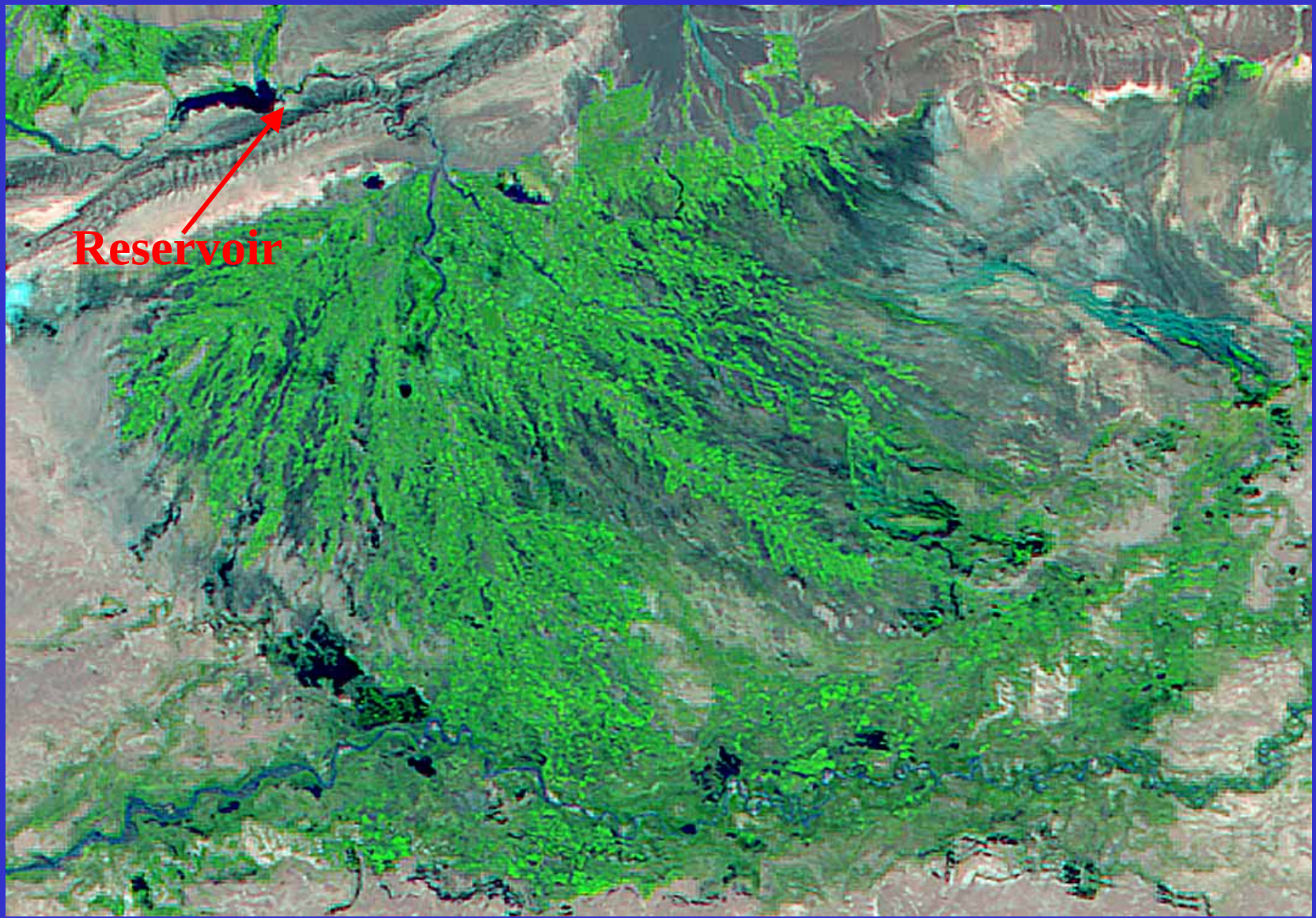
Monthly and seasonal change of the vegetation indexes of the MODIS data in the Tarim River watershed in 2002

4. Application of the MODIS Data



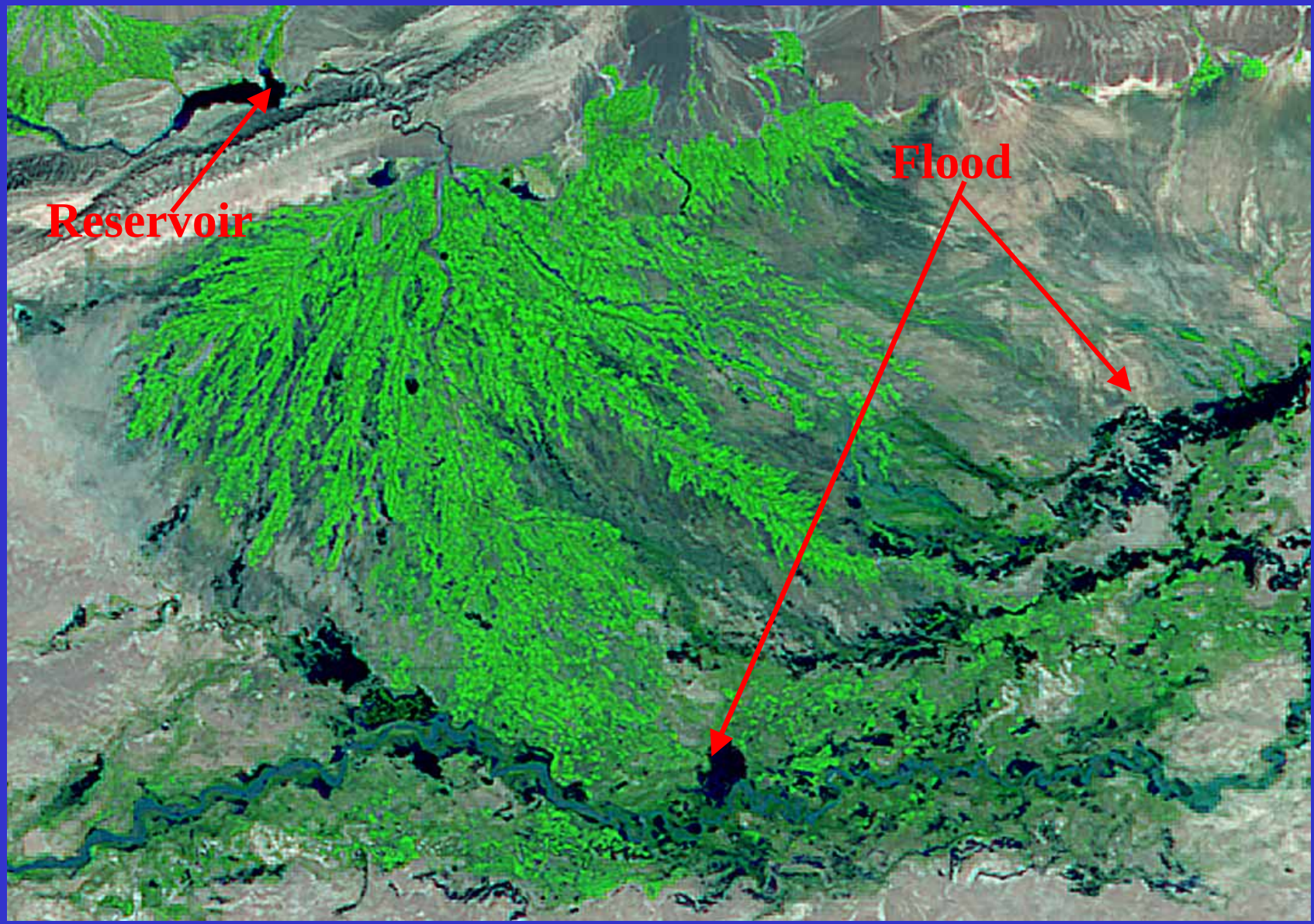
The derived results are applied to analyze the monthly change of NDVI and to monitor the growth status of the vegetation. The vegetation coverage in October was obviously higher than that in May.

4. Application of the MODIS Data



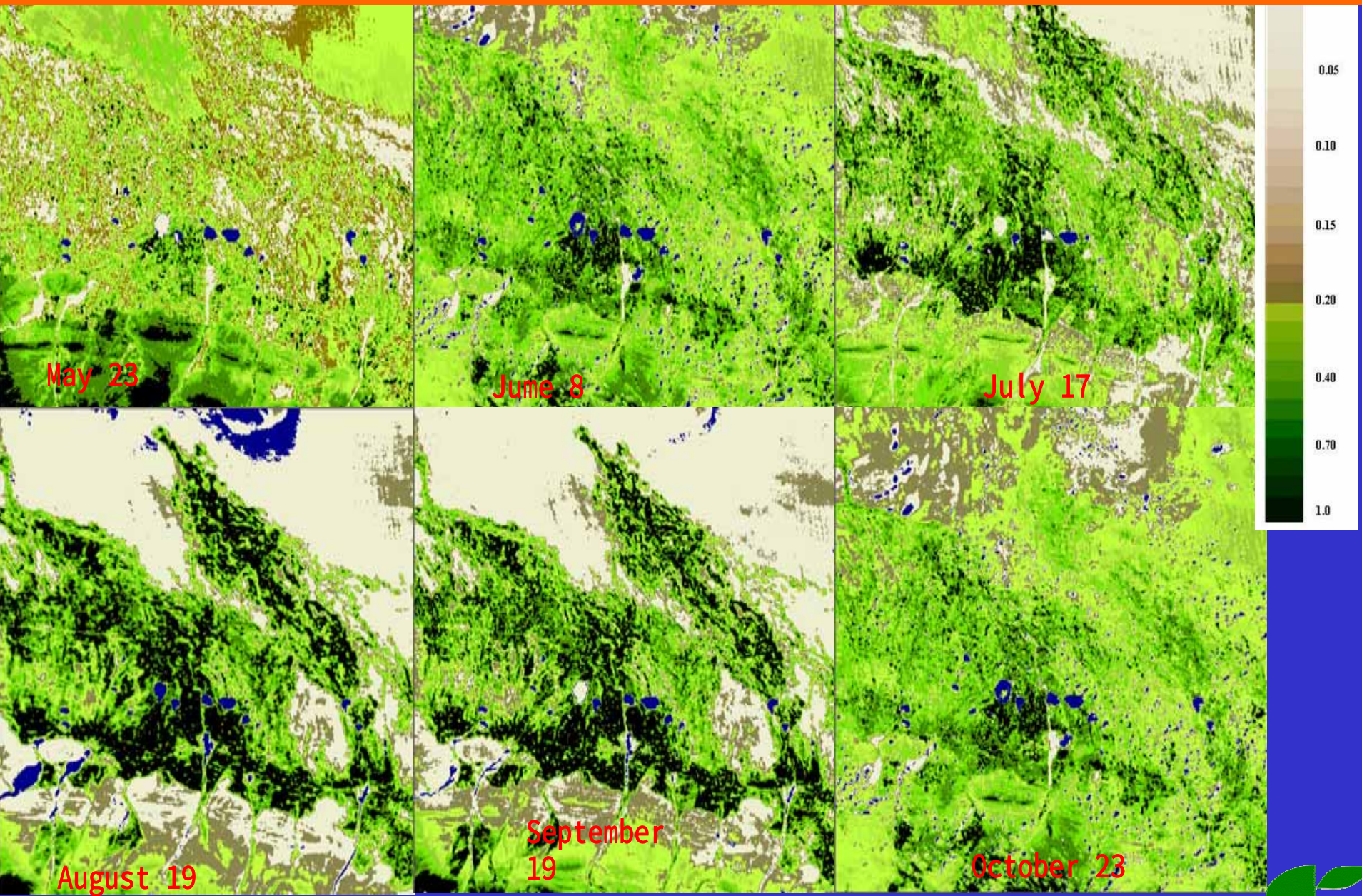
Monitoring on the flood in the Ogan River irrigated Area
（before the flood occurrence, July 17, 2002）

4. Application of the MODIS Data



Monitoring on the flood in the Ogan River irrigated Area
（after the flood, August 27, 2002）

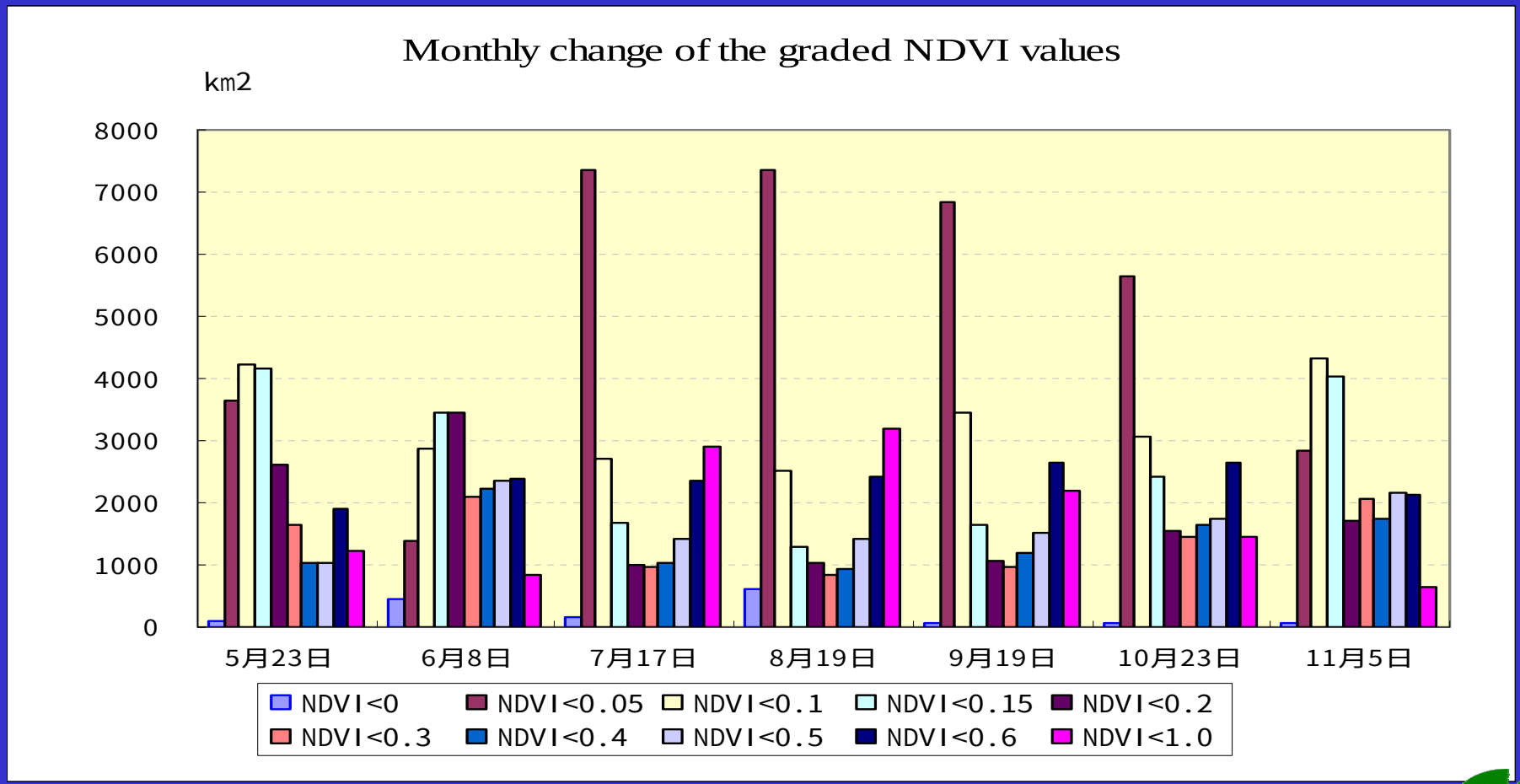
5. Monitoring on the growth status of crops in north Xinjiang



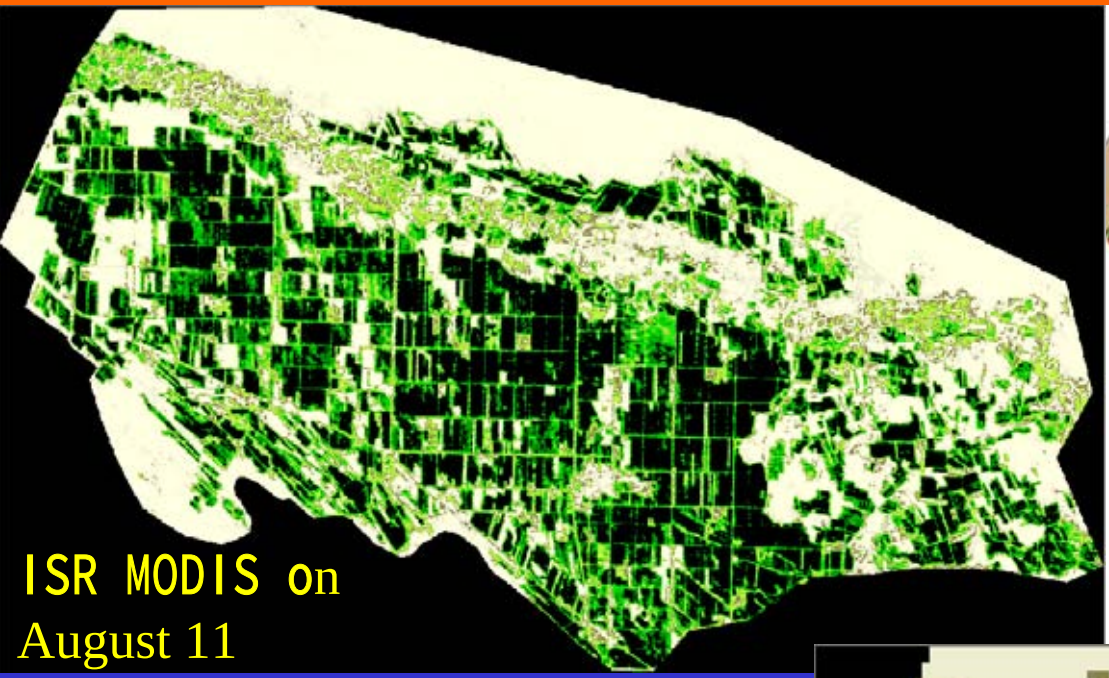
Derived NDVI results in north Xinjiang

5.Monitoring on the growth status of crops in north Xinjiang

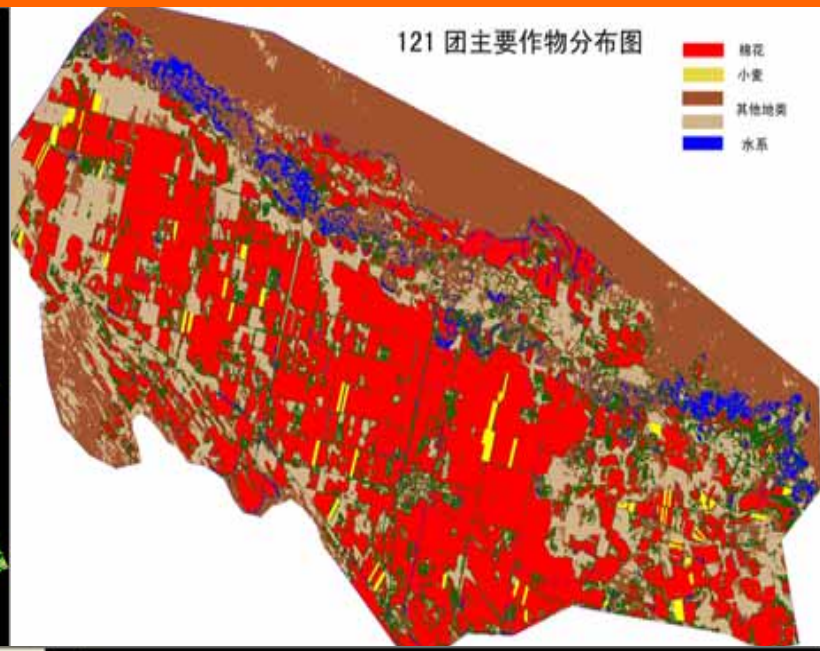
The value increases with the growth of cotton, it is up to the peak value in July and August, and then it decreases gradually.



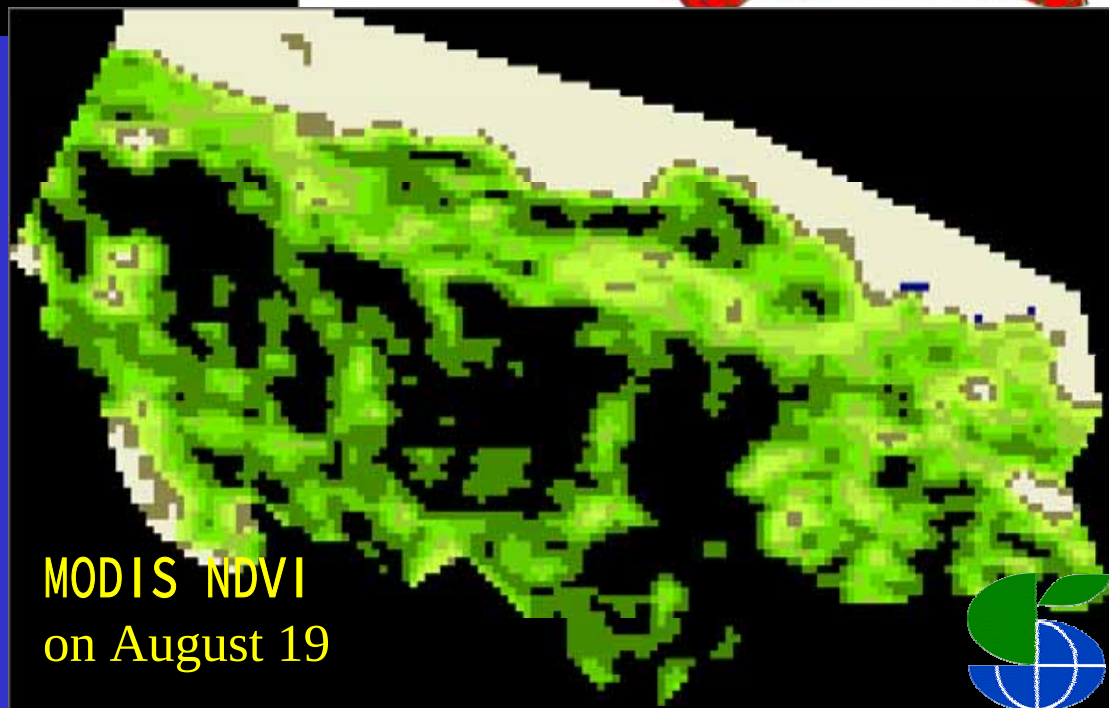
5. Monitoring on the growth status of crops in north Xinjiang



ISR MODIS on
August 11

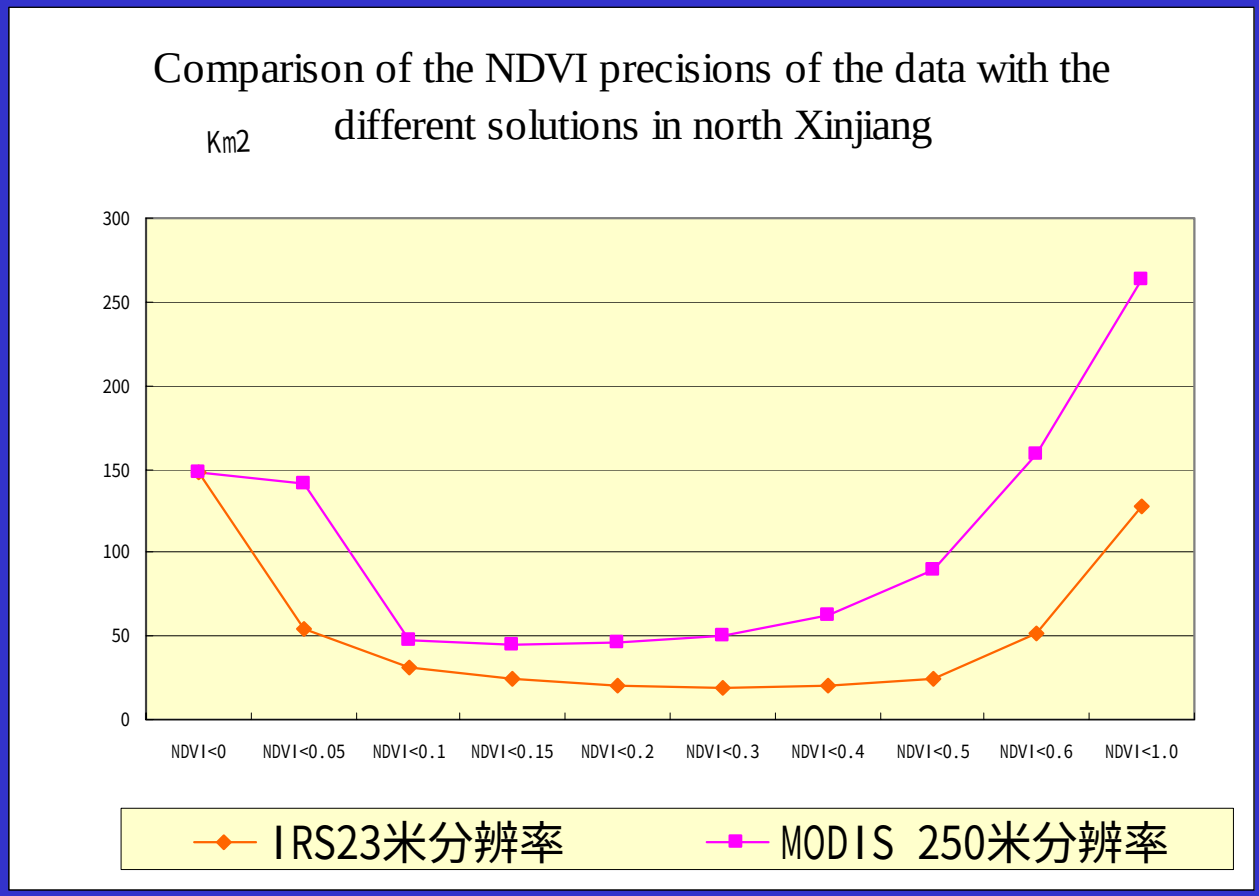


Analysis on the growth status of cotton by using the NDVI products with the different solutions



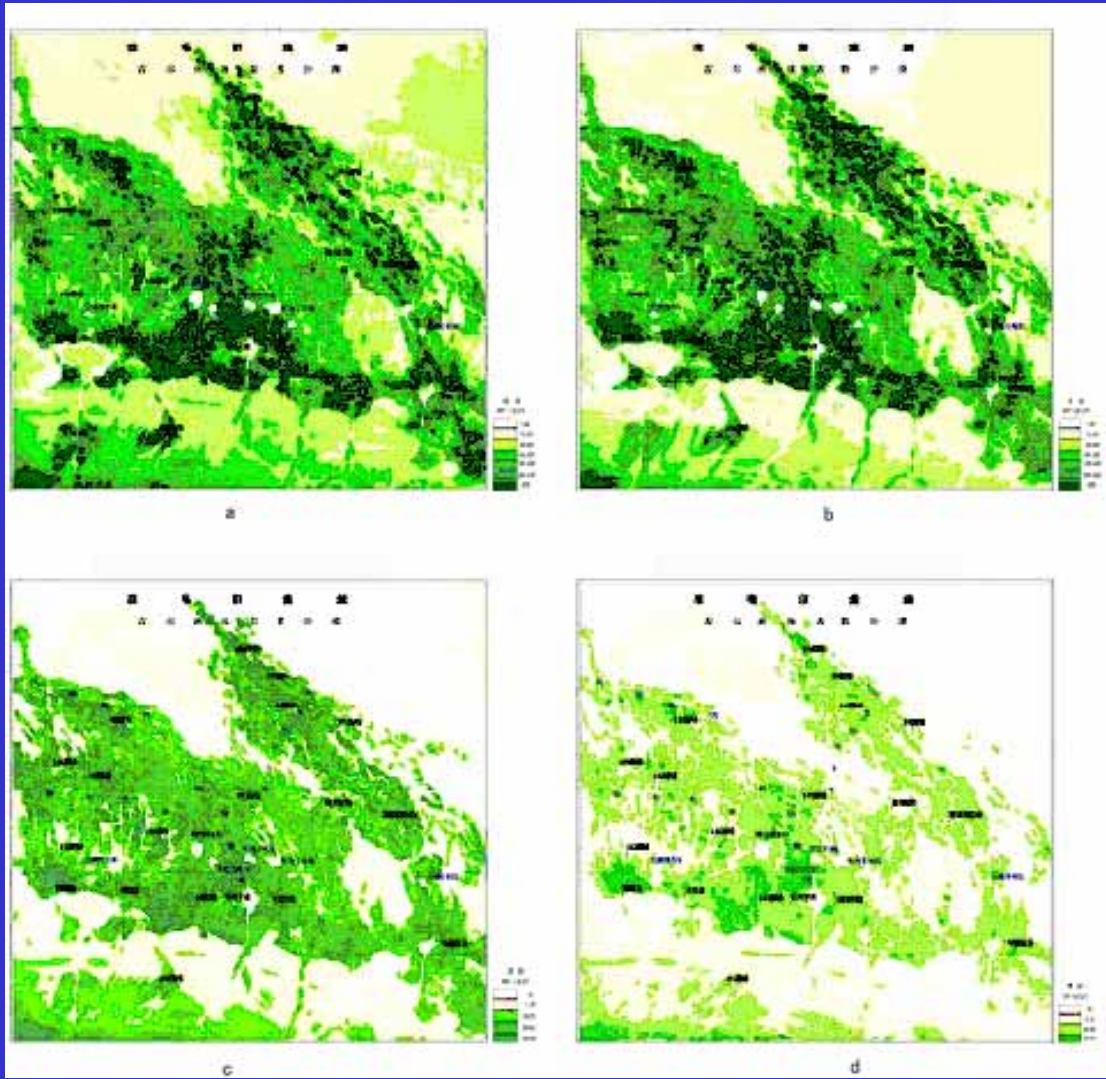
MODIS NDVI
on August 19

5. Monitoring on the growth status of crops in north Xinjiang



although the statistical areas of NDVI based on the MODIS data are larger than that based on the IRS data , the change trends of the areas divided by the two kinds of NDVI values are very similar

5. Monitoring on the growth status of crops in north Xinjiang



Change of NPP based on MODIS data in north Xinjiang

The calculated results show that the average NPP value in the Shihezi region was 469.06gC/m^2 in 2002, in which it was 810.37gC/m^2 in the oases and 170.31gC/m^2 in the deserts.

Conclusion:

Application of the MODIS data in Xiinjiang include monitoring, analysis and assessment of agricultural , natural disasters, soil moisture , desertification , atmospheric environment, exploitation and utilization of water resources, regional ecological restoration, etc,.

Thanks